

AMENDMENTS TO THE CLAIMS

Please **CANCEL** claims 1-14 without prejudice or disclaimer to the subject matter therein.

Please **ADD** claims 15-34 as shown below.

The following is a complete list of all claims in this application.

WHAT IS CLAIMED:

Claims 1 - 14 (Cancelled)

15. (New) A reinforced coal-based cellular product, comprising:

a matrix of coal-based cells reinforced with at least one layer of a fibrous carbonaceous material, wherein said coal-based cellular product includes a carbon foam having a first and second density.

16. (New) The reinforced coal-based cellular product of claim 15, wherein said carbon foam is formed from bituminous coal.

17. (New) The reinforced coal-based cellular product of claim 16, wherein said bituminous coal has a swell index ranging from about 3.5 to about 5.

18. (New) The reinforced coal-based cellular product of claim 17, wherein said bituminous coal has a swell index ranging from about 3.75 to about 4.5.
19. (New) The reinforced coal-based cellular product of claim 18, wherein said bituminous coal has a swell index above about 3.
20. (New) The reinforced coal-based cellular product of claim 15, wherein said first density of carbon based cells is greater than said second density of carbon based cells.
21. (New) The reinforced coal-based cellular product of claim 20, wherein said first density of carbon based cells is greater than said second density of carbon based cells for providing at least one of a heat transfer path, a mass transfer path, a load path, and a stiffener.
22. (New) The reinforced coal-based cellular product of claim 15, wherein said at least one layer of fibrous carbonaceous material for providing at least one of a heat transfer path, a mass transfer path, a load path, and a stiffener.
23. (New) The reinforced coal-based cellular product of claim 15, wherein said at least one layer of fibrous carbonaceous material comprises:
 - a first layer; and
 - a second layer arranged on said first layer in a traverse direction.

24. (New) The reinforced coal-based cellular product of claim 15, wherein said
said at least one layer of fibrous carbonaceous material is arranged parallel to a
predetermined force of said coal-based cellular product.
25. (New) The reinforced coal-based cellular product of claim 24, wherein said
predetermined force comprises a tensile force.
26. (New) The reinforced coal-based cellular product of claim 15, wherein said
bituminous coal has a Gieseler plasticity value above about 500 DDPM.
27. (New) The reinforced coal-based cellular product of claim 15, wherein said at least
one layer of fibrous carbonaceous material comprises at least three layers of
fibrous carbonaceous interlaced with layers of said matrix of coal-based cells.
28. (New) The reinforced coal-based cellular product of claim 3, wherein said fibrous
carbonaceous material is a non-woven two dimensional mat having random in-
plane fiber orientation, a chopped fiber, a non-woven two dimensional mat having
a random in-plane fiber orientation, a two dimensional woven mat, a knitted mat,
a prepeg of continuous unidirectional roving with a predetermined resin, or a filler
material formed into a two dimensional sheet.

29. (New) The reinforced coal-based cellular product of claim 15, wherein said at least one layer of fibrous carbonaceous material comprises a non-planar geometric shape.
30. (New) The reinforced coal-based cellular product of claim 15, wherein said at least one layer of fibrous carbonaceous material comprises a resin impregnated fibrous mat.
31. (New) The reinforced coal-based cellular product of claim 30, wherein said impregnated fibrous mat includes at least one of layer of phenolic resin, fufural resin, and epoxy.
32. (New) The reinforced coal-based cellular product of claim 15, wherein the at least one layer of fibrous carbonaceous material has a cone shape.
33. (New) The reinforced coal-based cellular product of claim 15, wherein the at least one layer of fibrous carbonaceous material has a wedge shape.
34. (New) The reinforced coal-based cellular product of claim 15, wherein said first density is about the same as the second density.